Buffalo

"B" Volume Blowers and Exhausters

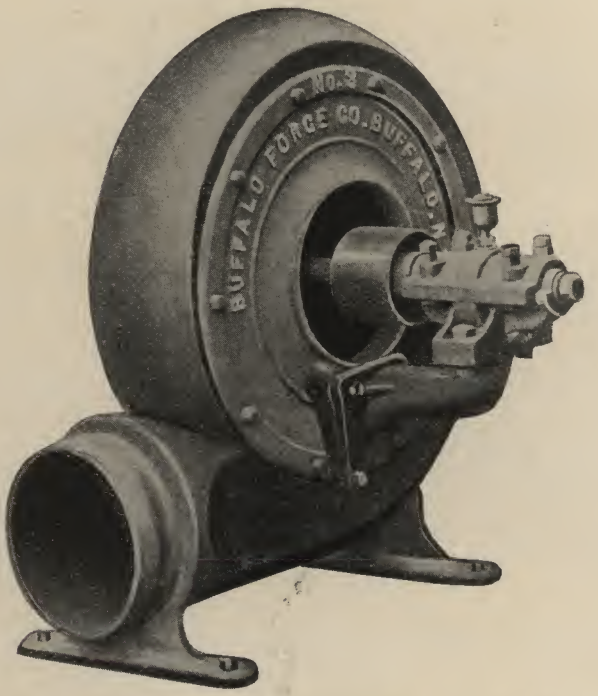
Standard Type "B" Volume Blower

Catalog 178, Section L

1910

30M-1-10.

Buffalo "B" Volume Blowers



Buffalo Bottom Horizontal Discharge Blower—the Regular or Standard Type.

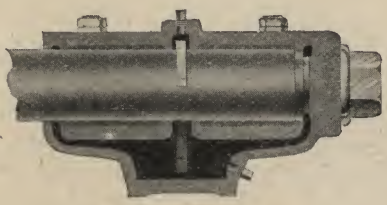
The design and structural details of Buffalo "B" Volume Blowers and Exhausters are the results of a practical knowledge gained only by years of successful experience building centrifugal fans for every purpose.

These blowers and exhausters are built with a solid peripheral shell of heavy cast iron, to which side plates of heavy cast iron are fitted tightly, and securely bolted. There are no weak and slovenly putty joints; there is no possibility of leakage.

A great advantage of this construction, in addition to strength, is the easy access to the interior for the inspection of parts or making repairs. By removing just one of the side plates the blast wheel and shaft is readily removed. It is unnecessary to dismantle the machine.

Buffalo "B" Volume Blowers

The blast wheel is of heavy rolled steel plate, mounted upon a malleable iron spider or hub. The backward turned vanes are securely riveted, not only to the arms of the spider, but also to the heavy steel side flanges. Strength and rigidity are thus assured.



Buffalo Oil-Ring Bearing

Each blast wheel is tested for both strength and balance beyond that required. A durable, smooth and easy running fan is thus secured.

A particularly vital point of any centrifugal fan is the bearings and the methods of supporting them. Buffalo "B" Volume Blowers and Exhausters have extra long journal bearings of the Buffalo ring-oiling type. The journal, lined with the best babbitt metal, has a chamber for the oil ring and a large reservoir for the oil supply. The ring constantly carries oil from the reservoir and distributes it around the shaft. It is impossible for the bearings to be without lubrication as long as there is oil in the reservoir. The ring operates perfectly quiet until the oil supply becomes low. Any noise or rattling of the ring is a signal for re-oiling, which is accomplished by removing the plugs at the top of the journal.

Buffalo Oil-Ring Bearing

This bearing is particularly suited for use where dust, dirt and grit fill the atmosphere. It requires little attention beyond an occasional filling of the oil reservoir.

Buffalo "B" Volume Blowers

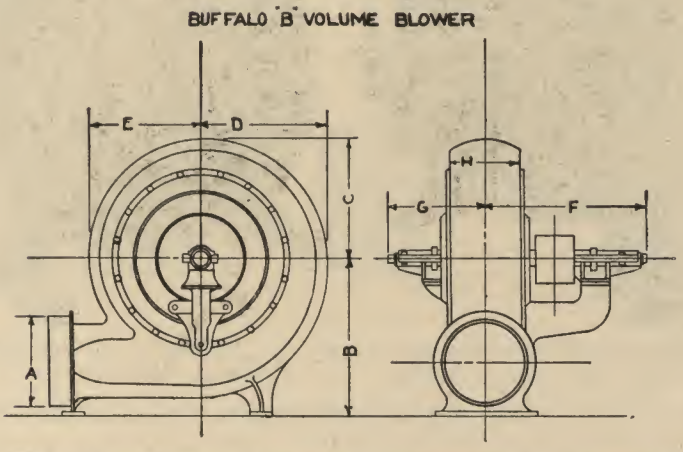
Forge Shop Equipped with Buffalo Down Draft Forges, Buffalo "B" Volume Blower to Supply the Blast, Buffalo "B" Volume Exhauster to Remove the Smoke and Gases.

The bearings are rigidly supported on heavy cast-iron arms or brackets, securely fastened to the side plates and babbitted in position, insuring perfect alignment at all times. Although the bearings of the blower are placed at each end of the shaft, and those of the exhauster on each side of the pulley with the blast wheel overhung, the same care is exercised in each case to properly align and support the bearings.

No.	Pulley		Weight	Price of Blower	Price of Bed	Price with Bed and Countershaft
	Diam.	Face				
000	$2\frac{3}{4}$	$2\frac{1}{4}$	47	**$ 15.00**	.....	.....
1	3	$2\frac{1}{2}$	55	**20.00**	.....	.....
2	$3\frac{1}{4}$	$2\frac{5}{8}$	95	**25.00**	.....	.....
3	4	$3\frac{1}{4}$	155	**33.00**	.....	.....
4	5	4	190	**44.00**	.....	.....
5	$5\frac{3}{4}$	$4\frac{1}{2}$	265	**55.00**	**$100.00**	**$135.00**
6	$6\frac{1}{2}$	$5\frac{1}{2}$	365	**70.00**	**130.00**	**175.00**
7	$7\frac{1}{2}$	$6\frac{1}{2}$	550	**90.00**	**170.00**	**230.00**
8	$8\frac{1}{2}$	$7\frac{1}{2}$	700	**150.00**	**265.00**	**350.00**
9	$9\frac{1}{2}$	$8\frac{1}{2}$	1,050	**200.00**	**380.00**	**500.00**
10	12	10	1,600	**250.00**	**475.00**	**625.00**
11	14	12	3,200	**350.00**	**550.00**	**700.00**

Special discharges 10 per cent additional.

Buffalo "B" Volume Blowers

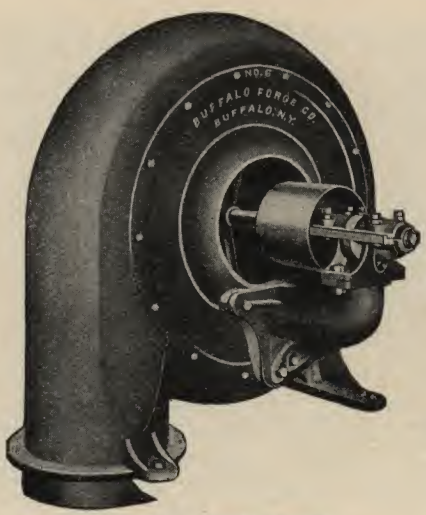


Buffalo Right-Hand Bottom Horizontal Discharge "B" Volume Blowers

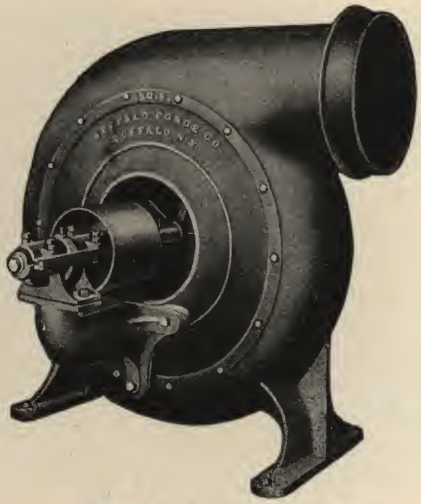
Dimensions and Prices.

No.	A	B	C	D	E	F	G	H
000	5 1/8	9	5 3/4	6 3/16	8 5/8	10 3/4	8 7/8	3 1/4
1	4 7/8	9	6 7/8	7 1/8	9 7/8	9 3/4	8	4
2	6 1/16	11 3/4	8 3/4	9 7/16	11 1/4	13	11	4 7/8
3	7 5/8	14	10 15/16	11 9/16	13 5/8	15 1/2	11 3/4	5 7/8
4	9	15 7/8	12 1/16	12 15/16	14 9/16	16 1/4	13 1/8	6 3/8
5	10 5/8	18	13 5/8	14 3/8	17 1/4	18 1/8	14	7 3/4
6	11 13/16	20 3/8	16 3/4	17 9/16	19 7/8	19 1/2	15 3/4	8 7/8
7	14	23 7/8	18 3/4	19 5/8	22	24 1/4	13	10 3/8
8	16 3/8	25 7/8	21 1/4	22	24 1/8	26 1/2	13 3/4	11 7/8
9	17 7/8	30 1/8	25	26 1/4	28 3/4	29	16 3/4	14 1/8
10	21	38 1/4	30 1/8	32	31 5/8	33 1/4	19 1/4	18 1/4
11	24 1/2	42 3/4	35 5/8	37 1/4	46 1/2	....	....	22

Buffalo "B" Volume Blowers



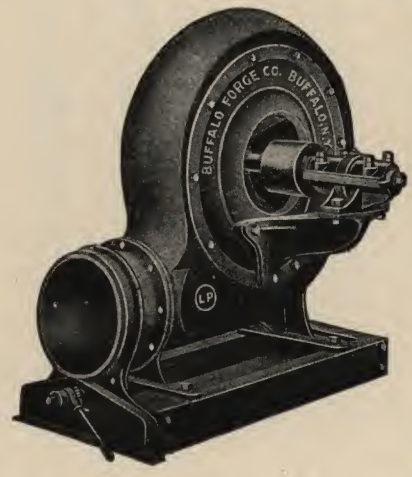
Buffalo "B" Volume Blower
Right-Hand Down-Blast Discharge



Buffalo "B" Volume Blower
Left-Hand Top-Horizontal Discharge

All sizes of blowers are regularly built to discharge horizontally at the bottom, and, when only one pulley is used it is placed, as one stands facing the outlet, on the right-hand side, and is designated as right hand. All blowers and exhausters are furnished with the bottom horizontal discharge, unless a special discharge is specified, for which an extra ten per cent is charged. The different discharges are bottom or top horizontal, up blast or down blast. Angular discharges may also be had. There is no extra charge for left-hand blowers or exhausters, provided the discharge remains standard, viz., bottom horizontal discharge.

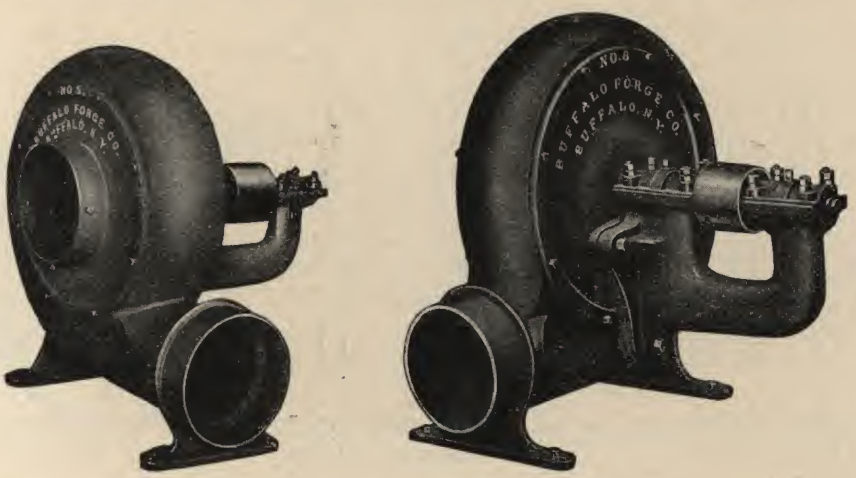
Buffalo "B" Volume Blower on Adjustable Bed



The telescopic outlet shown by the illustration renders the blower movable upon its bed without disarranging the blast pipe. The shaft of the blower is kept in perfect alignment when moved by means of the shackle bolt. This allows any required tension to be brought upon the belts while running, thus preventing inconvenience and loss incident to stoppage of the blower when work is in progress.

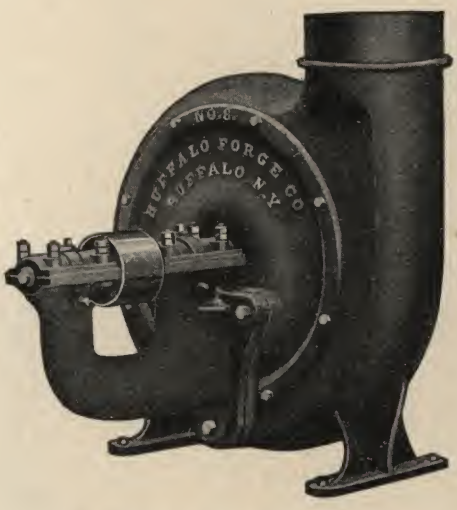
Sufficient length can be given to the steel beams to place a countershaft or high-speed engine upon it. This makes a very desirable arrangement. *For Price, See Page 252*

Buffalo "B" Volume Exhausters



Right-Hand Bottom Horizontal Discharge Buffalo "B" Volume Exhauster

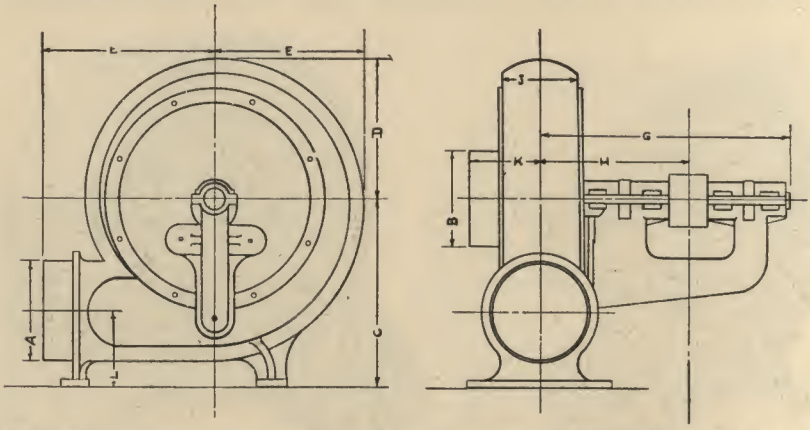
Buffalo Exhausters are furnished right-hand bottom horizontal discharge, unless instructions for a special discharge are given with the order, for which an extra ten per cent is charged.



Buffalo Left-Hand Up Blast "B" Volume Exhauster

The illustrations shown give a good idea of the splendid construction and the rigid manner in which the bearings are secured to the shell of the exhausters, allowing the blast wheel to be overhung. This gives an unobstructed opening for the inlet. Each bearing is provided with the Buffalo ring-oiling device, which insures perfect lubrication and cool bearings at continuous high rotative speeds.

Buffalo "B" Volume Exhausters



Buffalo Right-Hand Bottom Horizontal Discharge "B" Volume Exhausters

Table of Dimensions and Prices

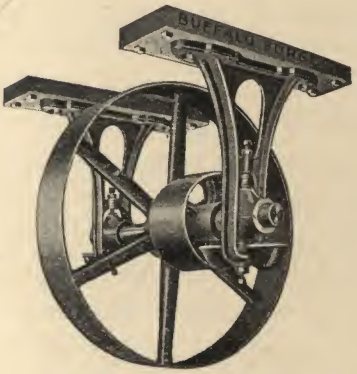
No.	A	B	C	D	F	G	H
000	5 1/8	5 1/16	9	5 3/4	8 5/8	11 3/4	7 1/2
1	4 7/8	5 3/4	9	6 7/8	9 7/8	10 7/8	6 1/8
2	6 1/16	6 1/16	11 3/4	8 3/4	11 1/4	14 1/2	9 1/4
3	7 5/8	7 1/2	14	10 15/16	13 5/8	18 1/8	11 1/8
4	9	9	15 7/8	12 1/16	14 9/16	19 5/8	12
5	10 5/8	10 5/8	18	13 5/8	17 1/4	23 3/4	14 1/4
6	11 3/16	12 1/8	20 3/8	16 3/4	19 7/8	25 3/8	15 3/8
7	14	14	23 7/8	18 3/4	22	28	16 1/2
8	16 3/8	16	25 7/8	21 1/4	24 1/8	30 5/8	18 1/4
9	17 7/8	17 1/4	30 1/8	25	28 3/4	33 5/8	20 3/8
10	21	21	38 1/4	30 1/8	31 5/8	37 1/8	23 1/8
11	24 1/2	24 1/2	42 3/4	35 5/8	46 1/2	....	....

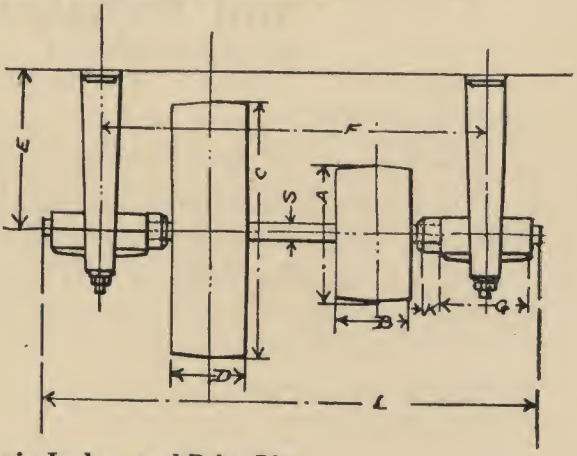
No.	J	K	L	Shipping Weight	PULLEY		Price
					Diameter	Face	
000	3 1/4	3	3 1/4	45	2 3/4	2 1/4	$15.00
1	4	3 3/4	3 9/16	60	3	2 1/2	20.00
2	4 7/8	5	4 9/16	100	3 1/4	2 5/8	25.00
3	5 7/8	5 3/8	5 5/8	170	4	3	33.00
4	6 3/8	5 3/4	6	200	5	3 7/8	44.00
5	7 3/4	7	6 13/16	275	5 3/4	4 5/8	55.00
6	8 7/8	7 3/8	7 3/8	380	6 1/2	5 1/4	70.00
7	10 3/8	8 7/8	8 11/16	575	7 1/2	6 1/4	90.00
8	11 7/8	9 5/8	9 11/16	725	8 1/2	7 1/4	150.00
9	14 1/8	11 3/4	11	1100	9 1/2	8 1/4	200.00
10	18 1/4	13 7/8	14 1/4	1600	12	9 3/4	250.00
11	22	16 3/4	17 1/8	3200	14	12	350.00

All dimensions are given in inches. Special discharges 10 per cent additional.
In ordering from this catalog please specify "B" Volume Blower or Exhauster, in full.

Buffalo Improved Countershafts

For "B" Volume Blowers and Exhausters





Dimensions in Inches, and Price List

Size Planing Mill Ex.	No. of "B" Blo. or Ex.	S	L	A	B	C	D	E	F	G	K	Price	Extra for Tight and Loose Pulleys
	000	1	20	5	4	14	2¼	8½	15	3½	1	**$10.00**	**$ 4.50**
	1	1⅛	22¾	6	4	16	2¼	9¼	18½	4	1⅛	**12.00**	**5.50**
	2	1¼	25⅞	7	4½	18	2⅝	9¼	21⅛	4½	1½	**16.00**	**6.00**
	3	1⅜	28	8	4½	21	3¼	10¾	22¾	5	1¾	**20.00**	**7.00**
30	**4**	1⅝	31	9	5	26	4	12⅞	25¼	5½	2	**25.00**	**7.50**
35	**5**	1¾	34¼	10	5½	30	4½	15⅛	28	6	2¼	**30.00**	**8.00**
40	**6**	2	37¾	12	6	32	5½	16¼	31	6½	2½	**40.00**	**9.00**
45	**7**	2¼	40¼	14	6	36	6½	18⅛	33	7	2¾	**50.00**	**10.00**
50	**8**	2½	46¾	16	8	40	7½	20½	39	7½	3	**65.00**	**13.00**
55	**9**	2¾	51	18	8	42	8½	23½	40	9	3	**80.00**	**14.00**
60	**10**	3	56	20	9	44	10	23½	45	9	3¼	**85.00**	**17.00**
70	**11**	3	61	22	10	48	12	23½	50	9	3¼	**90.00**	**21.00**

Buffalo Improved Countershafts were designed for use with Buffalo Blowers and Exhausters. Steel shafts are employed, with diameters varying according to the duty, and the pulleys also are properly proportioned. Buffalo Countershafts are furnished with the most improved type of shaft-hanger bearings. The construction is of special merit for use where dust and grit exist in the air.

In ordering blast wheels, customers will avoid much delay by stating exactly the size and kind of blower for which the blast wheel is intended, as well as detailing the various dimensions. The shop number stamped on the shaft or bearing should be referred to.

In the case of forge shop, emery wheel and other like installations, it is always well to give in detail the number, size and nature of all machines to be served, together with their relative location and the desired position of the fan.

Buffalo "B" Volume Blowers and Exhausters

Considerations which have led to the use of the fan for forced draft, when stated briefly, are:

Coal saved; low grades of fuel burned; smoke prevented by a proper mixture of hard and soft coal or screenings; simplicity of installation; initial cost far less than a chimney; cost of maintenance low; easily applied to old boilers at a minimum initial expense; steaming capacity of boilers advanced to a maximum; flexible, positive, instantaneous; meets promptly sudden demands for steam; constant boiler pressure provided by automatically controlling speed of fan engine or motor; an indispensable adjunct of mechanical stokers; an essential for the proper combustion of sawdust, bagasse, spent tanbark and like fuels; efficiency greatly in advance of natural draft; economizes space; not affected by atmospheric conditions or temperature of gases; insures highest possible furnace efficiency; insures highest possible efficiency of economizers.

Table for Forced Draft

Square Feet of Grate	10 Lbs. of Coal per Sq. Ft. per Hour		12 Lbs. of Coal per Sq. Ft. per Hour		15 Lbs. of Coal per Sq. Ft. per Hour	
	Blower	R. P. M.	Blower	R. P. M.	Blower	R. P. M.
8	3	980	3	1095	3	1202
12	4	859	4	960	4	1053
16	5	776	5	867	5	951
24	6	635	6	710	6	778
32	7	582	7	650	7	713
48	8	499	8	558	8	611
64	9	411	9	460	9	503

Square Feet of Grate	20 Lbs. of Coal per Square Ft. per Hour		30 Lbs. of Coal per Square Ft. per Hour	
	Blower	R. P. M.	Blower	R. P. M.
8	4	1138	5	1098
12	5	1027	6	898
16	6	840	7	822
24	7	770	8	706
32	8	660	9	581
48	9	543	10	494
64	10	462	11	415

Buffalo "B" Volume Blowers and Exhausters

The application of Buffalo "B" Volume Blowers for supplying blast to forges will usually require a pressure of about 4 or 5 ounces. In long piping systems, however, it will be necessary to employ a greater pressure at the blower in order to compensate for the frictional losses in the piping itself. For exhausting the smoke and gases from forges, a pressure of 2 ounces will be necessary; where the number of forges is great it is customary to employ a Buffalo Steel-Plate Exhaust Fan.

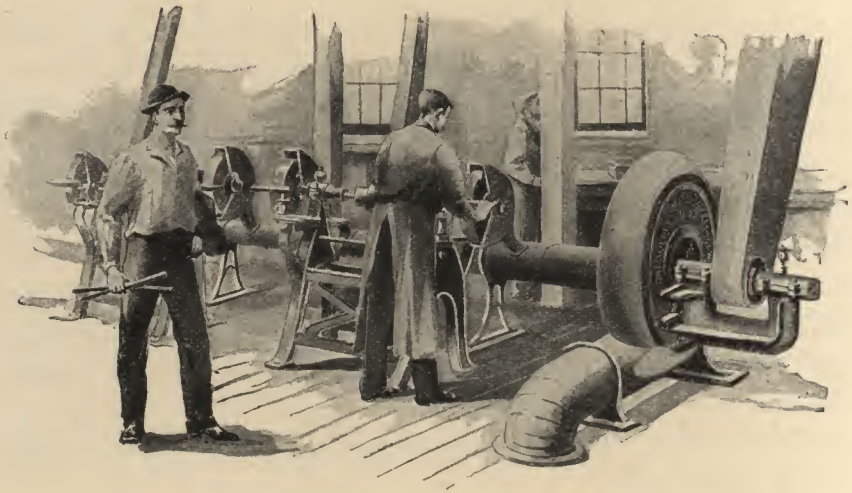
On page 252 is shown the interior of a forge shop equipped with Buffalo Down Draft Forges and served by a Buffalo Blower and a Buffalo Exhaust Fan. The following table of speeds of Buffalo "B" Volume Blowers and Exhausters for various pressures in ounces per square inch and deliveries in cubic feet of air per minute may be followed in miscellaneous installations.

Speeds, Capacities and Horsepower of "B" Volume Blowers and Exhausters

No. of Blower	½ Oz.			1 Oz.			2 Oz.		
	R. P. M.	Cap.	H. P.	R. P. M.	Cap.	H. P.	R. P. M.	Cap.	H. P.
1	1693	104	.023	2396	148	.074	3393	210	.233
2	1397	264	.059	1976	374	.187	2800	534	.593
3	980	438	.098	1387	621	.310	1965	888	.987
4	859	585	.130	1216	828	.414	1724	1174	1.300
5	776	837	.186	1098	1185	.593	1556	1688	1.870
6	635	1185	.263	898	1677	.839	1274	2382	2.650
7	582	1372	.305	823	1941	.971	1168	2752	3.060
8	499	1986	.440	706	2810	1.405	1001	3983	4.430
9	411	3299	.733	581	4668	2.334	824	6641	7.300
10	349	4488	.997	494	6350	3.175	702	9003	9.900
	3 Oz.			4 Oz.			6 Oz.		
1	4169	258	.382						
2	3437	651	.964	3977	753	1.37			
3	2414	1090	1.615	2794	1261	2.29	3436	1551	3.86
4	2119	1441	2.135	2452	1667	3.03	3015	2051	5.13
5	1912	2071	3.08	2212	2397	4.36	2721	2948	7.37
6	1563	2923	4.33	1809	3382	6.15	2225	4160	10.40
7	1434	3377	5.00	1660	3908	7.10	2041	4806	12.00
8	1229	4888	7.24	1422	5656	10.20	1748	6957	17.40
9	1012	8150	12.10	1171	9431	17.10	1440	11599	28.90
10	861	11050	15.00	966	12786	21.90	1225	15726	37.00

Buffalo "B" Volume Exhausters

For Dust and Smoke Exhausting



View Showing Emery Exhaust System

The application of Buffalo "B" Volume Exhausters for the purpose of removing the refuse from emery wheels, buffing wheels, or the machines of any abrasive processes, has been most extensive, and in view of its simplicity and efficacy is the best solution of the problem of preventing the dissemination or accumulation of undesirable refuse, or of saving those particles of abraded material which are of sufficient value to render such a course advisable.

The accompanying illustration of an exhaust outfit will serve in a manner to indicate the arrangement customarily employed for this purpose. Two types of hoods for abrasive wheels are shown, but in view of the fact that the grinding of different processes is done at different portions of the wheel, it is impossible that one type of hood should answer for all grinding wheels, and hence it will usually be found advantageous to construct and apply the hoods on the ground in preference to having them constructed at this factory with the blowers. Separate exhausters should always be used for emery and buffing systems.

Buffalo "B" Volume Exhausters

For Dust and Smoke Exhausting

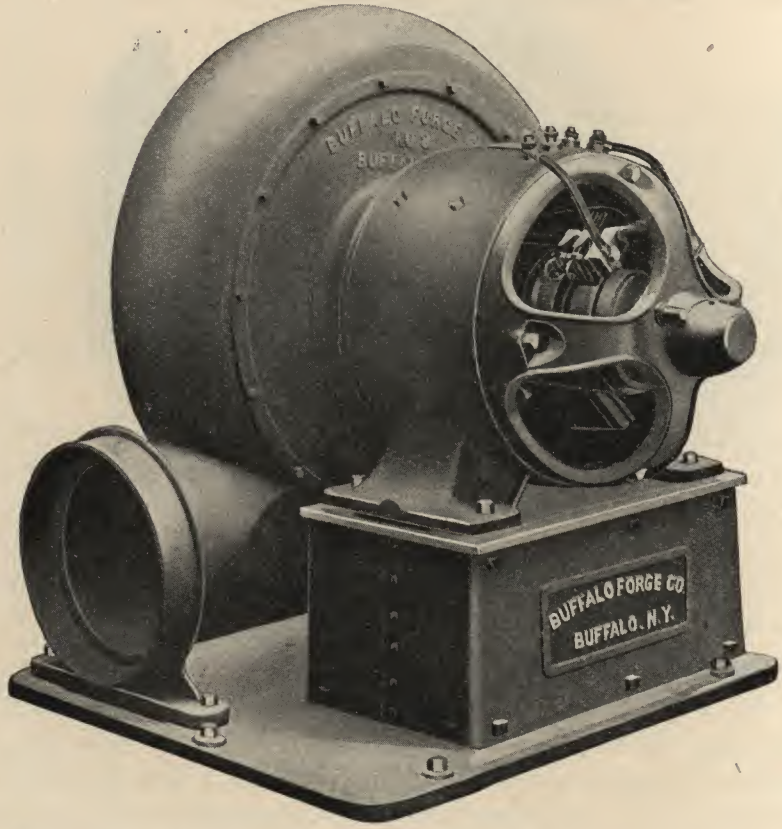
In applying such an exhaust system care must be taken to have the piping of adequate diameter and with as few bends as possible. All pockets or obstructions in the pipe must be strenuously avoided and the stock employed for the piping itself should be of a heavy gauge to resist the wearing effect upon it. After passing through the blower the refuse may be discharged out of doors, or else into a vat of water in such a way as to enable the sediment to be collected from time to time.

For removing smoke from forges or blacksmith shops and for ventilating underground passages Buffalo Exhausters are largely employed. For special purposes special fans may be constructed. They may be built, when so ordered, with copper or bronze blast wheels and with the shells coated inside and outside with asphaltum, to withstand the destructive results of the fumes common to chemical works, sugar refineries, dyeing rooms and varnish factories.

In the case of forge shop, emery wheel and other like installations it is always well to give in detail the number, size and nature of all machines to be served, together with their relative location and the desired position of the fan.

If you desire to employ an engine to drive the blower we will be pleased to send you a catalog of our automatic high-speed engines which we build for this work.

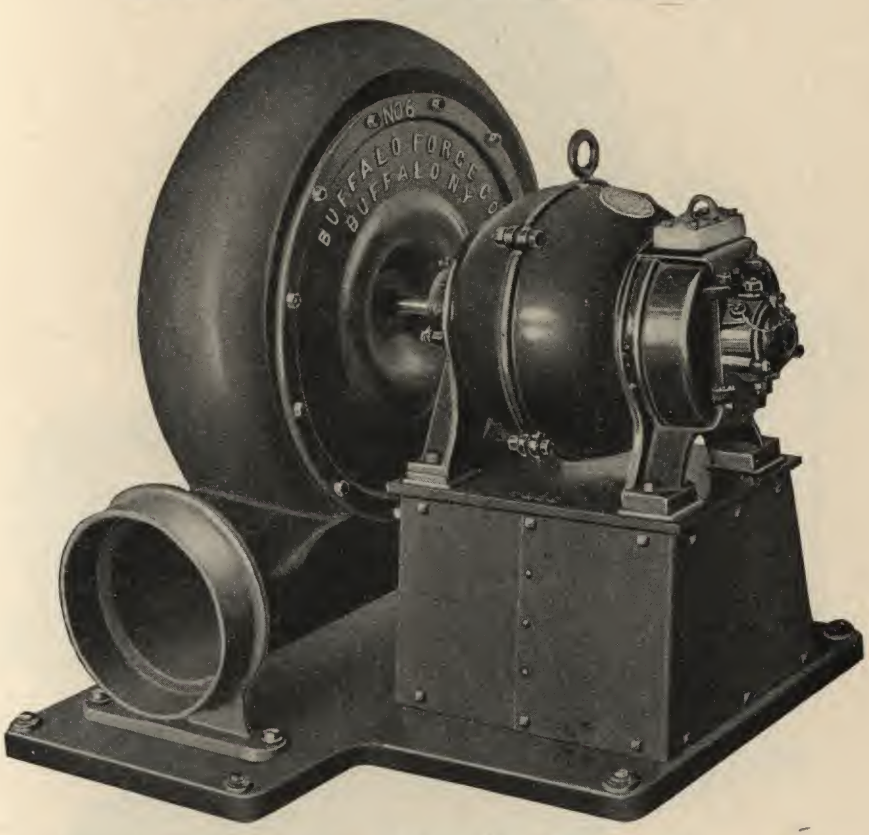
Buffalo Electric "B" Volume Blowers and Exhausters



For many applications the speed of these fans is nicely suited to use direct-connected motors, and we have made a specialty of furnishing a complete, self-contained outfit; blower and motor both being bolted to the same cast-iron sub-base, preventing either from working out of place. The blast wheel may be overhung on the motor shaft or, in the case of blowers with two inlets, a coupling is ordinarily used. Motors are ordinarily open or semi-enclosed, but when working in very dusty rooms enclosed motors are recommended.

Among the common uses for the Buffalo "B" Volume Electric Fans may be mentioned forced draft, ventilation for laboratories, toilets and kitchens, forge blowers and exhausters in connection with Buffalo Down Draft Forges, emery and buffing wheel exhaust systems, organ blowing, etc.

Buffalo Electric "B" Volume Blowers and Exhausters



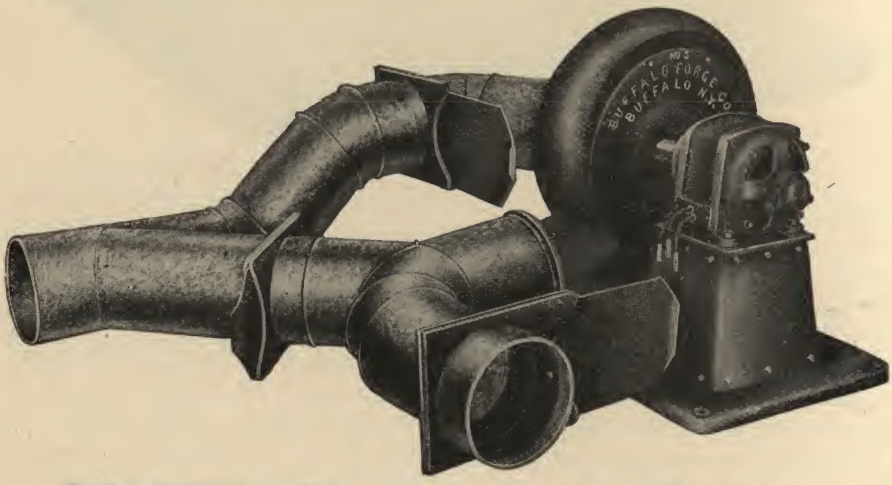
Extended coöperation with leading manufacturers of motors in the introduction of electric blowers and exhausters has led to the perfection of a number of standard designs, adapted to a wide variety of conditions and uses. They are capable of continuous use with only ordinary attention, and may be installed in positions where other sources of power would be unavailable. Variable speed motors afford means of changing the capacity and pressure delivered, and a location may be chosen so as to greatly simplify the pipe connections.

Inquiries should always state the voltage, if direct current is used or, if alternating current, the voltage, number of cycles and the phase.

We furnish all types of fans with direct-attached motors of standard make, but particularly the steel plate fans, pressure blowers, disk fans and small forge blowers.

Buffalo Electric "B" Volume Exhausters

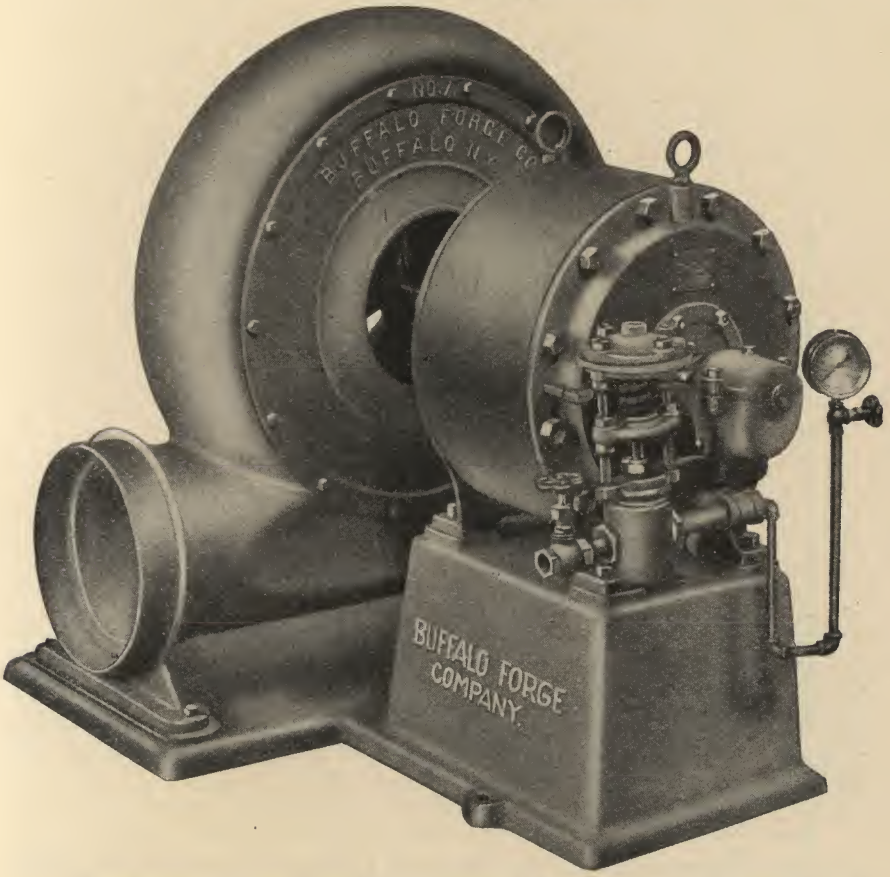
Buffalo "B" Volume Exhauster Direct-Connected to Electric Motor
Prices and Specifications on Application



Buffalo "B" Volume Exhauster Direct-Connected to Electric Motor
Showing Arrangement and Application for Mine Ventilation Service

Buffalo "B" Volume Blower

Direct-Connected to Steam Turbine

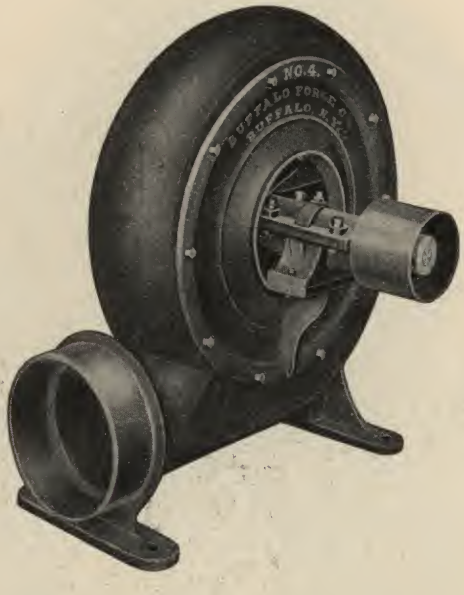


The steam turbine directly produces that rotary motion required by the blower. The blast wheel and turbine are, therefore, keyed to the same shaft, completely unifying the equipment and materially increasing its efficiency. The compact outfit thus secured is readily placed in the most convenient location to economically produce results.

The steam consumption of this unit is small. In plants using steam for power, the exhaust steam of an engine is often utilized, rendering the cost of operation practically nothing.

This unit possesses no complicated parts to demand constant attention. The only attention required is to turn on or shut off the steam to start or stop, and occasionally to fill the oil cups to insure lubrication.

Buffalo "B" Volume Export Blowers



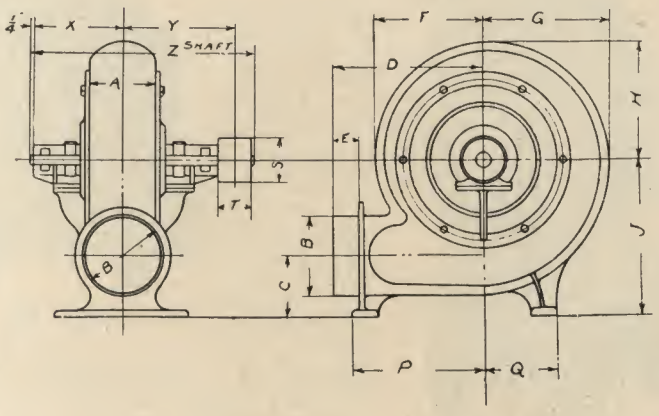
The Buffalo "B" Volume Blower with overhung pulleys is of the same substantial construction as the standard blower described in the preceding pages. That attention to the smallest detail which makes Buffalo Fans and Blowers the standard of excellence characterizes the construction of this Blower.

The only difference between this and the standard blower is the location of the pulleys and bearings; the former being overhung on the end of the shaft and the latter supported upon a shelf at the inlets. This shelf is an integral part of the side plate and rigidly maintains the alignment of the bearings.

The bearings, shaft and pulleys are removed and placed inside the casing when packed for shipment. This eliminates the projecting parts, increases the assurance of safe delivery at destination and, in foreign or export shipments, reduces transportation charges, which are based upon the cubic space occupied, as determined by the longest dimensions.

The tables of horsepower, speeds and capacities, as well as the price list of the standard "B" Volume Blowers, apply also to these Blowers.

Buffalo "B" Volume Export Blowers



Dimensions in Inches

No.	A	B	C	D	E	F	G	H	J	P	Q	S	T	X	Y	Z
1	4	4 7/8	3 9/16	9 7/8	2 3/8	6 7/8	7 1/8	6 7/8	9	8 1/4	3 7/8	3	2 1/2	5 1/8	6 3/8	13 1/4
2	4 7/8	6 1/16	4 9/16	11 1/4	1 5/8	8 3/16	9 7/16	8 3/4	11 3/4	10 1/16	5 7/16	3 1/4	2 5/8	6 1/4	7 5/8	15 5/8
3	5 7/8	7 5/8	5 5/8	13 5/8	2 1/2	10 5/16	11 9/16	10 15/16	14	12	6	4	3 1/4	8	10	20 1/8
4	6 3/8	9	6	14 9/16	2 9/16	11 9/16	12 15/16	12 1/16	15 7/8	13 1/8	10 5/16	5	4	8 5/8	10	21 1/8
5	7 3/4	10 5/8	6 13/16	17 1/4	2 1/2	12 5/8	14 3/8	13 5/8	18	16	7 7/8	5 3/4	4 1/2	9 9/16	11 1/4	22 3/4
6	8 5/8	11 13/16	7 3/8	19 7/8	2 1/2	15 3/4	17 9/16	16 3/4	20 3/8	18 3/4	11 11/16	6 1/2	5 1/2	10 15/16	12 1/4	26 1/2
7	10 3/8	14	8 11/16	22	2 3/4	18 1/8	19 5/8	18 3/4	23 7/8	21	12 1/2	7 1/2	6 1/2	11 7/8	13 3/8	29
8	11 5/8	16 3/8	9 11/16	24 1/8	2 3/4	20 1/8	22	21 1/4	25 7/8	23	15 1/8	8 1/2	7 1/2	12 3/16	14 1/2	31 1/4
9	14 1/8	17 7/8	11	28 3/4	3	24	26 1/4	25	30 1/8	27 1/4	19 1/4	9 1/2	8 1/2	14 7/8	16 1/8	36 1/2
10	18 1/4	21	14 1/4	31 5/8	2 7/8	28	32	30 1/4	38 1/4	30 1/4	20 1/4	12	10	17 5/8	20 3/8	43 3/4
11	22	24 1/2	17 1/8	46 1/2	11 1/2	34	37 1/4	35 5/8	42 3/4	37 1/4	22 3/4	14	12	17 1/4	23	45

Outside Dimensions of Packing Cases for "B" Volume—Export Blowers

	No.	1	2	3	4	5	6	7	8	9	10	11
PACKING CASES	Length In.	19	22 3/4	27 1/4	29 1/2	34	40	44 1/4	48 3/4	57 1/2	66 1/4	86 1/4
	Width In.	12 1/4	14 1/2	18	19 1/4	21 1/2	24 1/2	26 1/4	27	32 1/4	37 1/2	35
	Height In.	16 3/4	21	25 1/4	27 3/4	31 3/4	37 1/4	42 1/2	47	54 3/4	66 3/4	77 1/2
Weight (Gross) Lbs.		65	110	175	220	305	415	615	800	1150	1800	3470

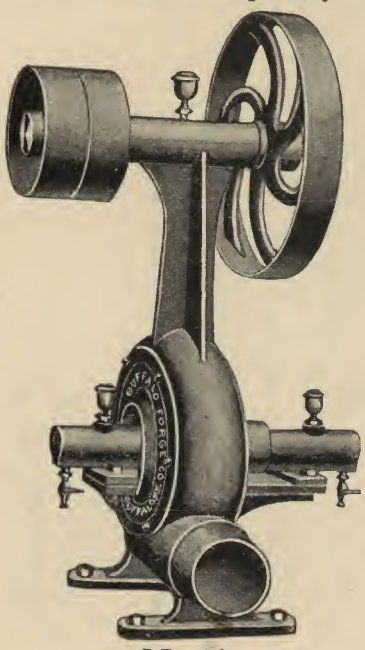
Buffalo Steel Pressure Blowers

DESIGNS FOR SPECIAL DUTIES

Buffalo Experimental Blower and Exhauster

The Buffalo Experimental Blowers and Exhausters are made upon the same principle as Buffalo Pressure Blowers. They operate noiselessly and yield as large a volume of air, in proportion to the sizes, as the other types, but will not produce the same amount of pressure. They are intended especially for blowing fires in portable and small stationary boilers, for experimenting and various purposes where a small quantity of air, at an average pressure, is desired. The No. 0 is sufficient to blow one forge fire; No. ½ is sufficient for three forge fires of average size.

No. 00
Experimental Blower



No. 1

Price, $20.00

13¼ in. Between Centers of Shafts.
27 in. high over all.

No. 2, Price, $28.00

14½ in. Between Centers of Shafts.
30½ in. high over all.

Buffalo Laundry Blower

Cut on left shows a small special pressure blower having the countershaft standard cast in one piece with the shell of the blower. These are built in two sizes, though others may be constructed to order if so desired.

No. 00 Experimental Exhauster

Sizes, dimensions and capacities are the same as Buffalo Steel Pressure Blowers of the same numbers. See page 235

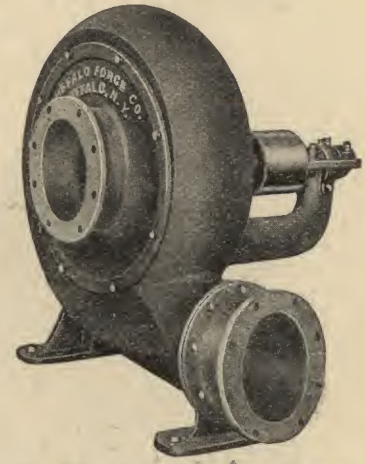
Buffalo Experimental Blowers and Exhausters

No.	Outside Diam. Outlet	Height	Weight	Pulleys		Price
				Diam.	Face	
00	2¾	11 in.	20 lbs.	1¼	1¼	$ 8.00
0	3	15 in.	30 lbs	1¾	1¾	10.00
½	4½	20 in.	45 lbs.	1¾	2	14.00

Buffalo Gas Exhausters

The use of gas blowers and exhausters in connection with gas generators was originated by the Buffalo Forge Co., and is now recognized as an essential in gas manufacture.

In external appearance the Buffalo Gas Blowers and Exhausters are not unlike other types of Buffalo fans; but the design and construction of the wheels and other parts are of special form, and afford results that are impossible with the ordinary type.



"L. P." Gas Exhauster, Showing Inlet and Discharge Orifices

For exhausting work the Buffalo Gas Exhausters are fitted with flanges cast with the side plate and bolted to the outlet, to insure perfect joints. There is little opportunity for escape of the gases. The journals are of Standard Buffalo Oil-Ring type; of extra length with enlarged oil chambers, insuring that copious lubrication which is essential for smooth running. The fan blower is to a certain degree automatic in action, the discharge from the periphery of the wheel being variable in pressure and volume to suit all conditions. The power required is lessened as the work of the fan is reduced. The power required by the fan blower is far less per cubic foot delivery than that required by blowers of the positive type.

Buffalo Gas Exhausters are of two types—high pressure and low pressure. Low-pressure exhausters range in capacity from 30,000 to 1,500,000 cubic feet per hour, and in pressure from 0 to 15 inches of water. High-pressure exhausters are operated at pressures varying from 10 to 26 inches of water, while capacities range from 30,000 to 3,000,000 cubic feet per hour.

High-Pressure Exhauster

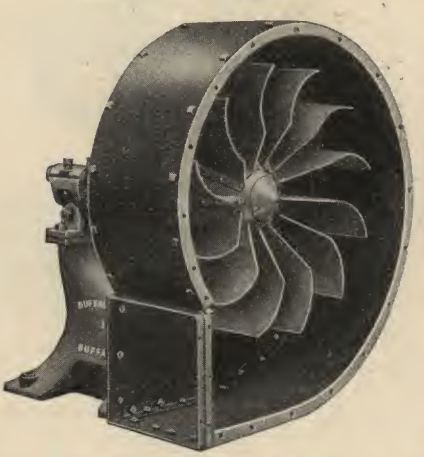
Buffalo Gas Exhausters are used for transferring gas from generator or purifier to holder, from holder to holder, or from holder or purifier to street mains. It is well to note here that an absolutely steady light may be maintained at all times—a result which cannot be obtained with other exhausters.

Unless otherwise ordered, we construct all of our gas exhausters with bolt holes in the inlet and outlet flanges in accordance with the recommendations of the "committee appointed by the Society of Gas Lighting to devise a plan for uniformity in gas-works castings."

Prices, dimensions, etc., on application.

Buffalo Reversible Steel Plate Planing Mill Exhauster

Slow Speed Type **Standard Type**



Slow Speed Blast Wheel

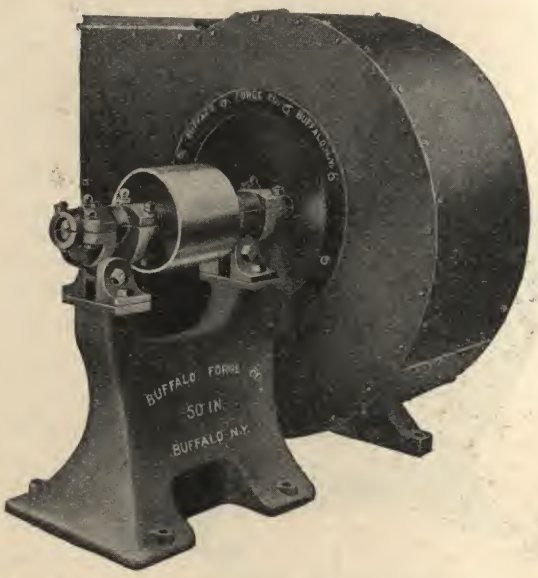
Buffalo Reversible Steel Plate Planing Mill Exhausters are used for many purposes, prominent among which are the removal of shavings and sawdust from woodworking machinery, refuse from buffing wheels, emery wheels and other abrading processes, also gases and acid fumes; smoke and gases generated by forge and furnace fires.

They also furnish a convenient and economical means of conveying cotton, wool, grain, spent tan bark, in fact anything handled by pneumatic conveying apparatus.

These exhausters are adjustable to either hand and to any angle of discharge. No matter what changes are made in your building, these exhausters are quickly adapted to any position, just as though they were built particularly for it.

To change the angle of discharge, just loosen the bolts holding the housing to the pedestals, revolve the housing until the discharge points in the desired direction, then tighten the bolts and it's done.

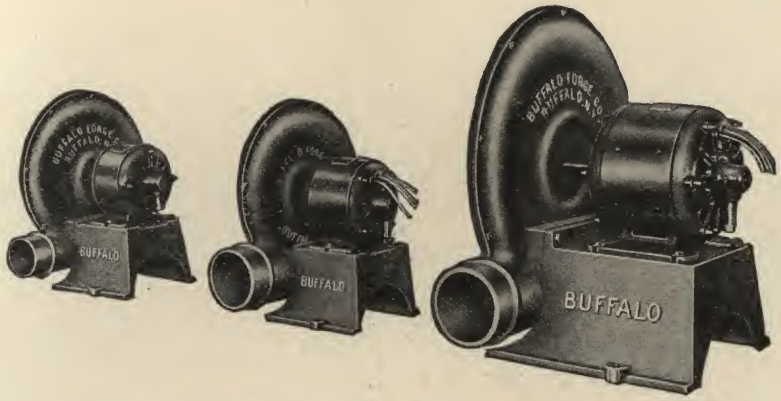
The slow speed exhauster illustrated above handles the same work as a standard fan of the same size at a reduction of 20 per cent in speed and a saving of 10 per cent in power.



Write for Special Catalog

Buffalo Electric Forge Blowers

PERFECTLY SIMPLE—SIMPLY PERFECT



"Buffalo" Improved Electric Blowers Nos. 2E, 3E and 4E

The following table gives sizes, capacities and prices of the "Buffalo" Improved Electric Blowers.

When ordering, be careful to state nature and details of electric current on which motor will operate.

If direct current, also give voltage.

If alternating current, give voltage, phase and cycles or alternations.

Number of Blower	Number of Fires Blower will furnish Blast for	Diameter of Outlet in Inches	Total Height in Inches	Revolutions per minute	Voltage Direct Current Motor	Voltage Alternating Current Motor	Cycles A. C. Motor	Approximate Weight Blower and Motor	Price with Direct Current Motor	Price with Alternating Current Motor
2E	1	3″	15″	1800	110 220			50	$36.00	
2E	1	3″	15″	1700		110	60	50		$36.00
2EH	1—2	3″	15″	3000	110 220			55	$50.00	
2EH	1—2	3″	15″	3400		110 220	60	55		$56.00
3E	2—3	4″	15″	3000	110 220			60	$64.00	
3E	2—3	4″	15″	3400		110 220	60	60		$72.00
4E	3—5	5″	20″	3200	110 220			110	$96.00	
4E	3—5	5″	20″	3400		110 220	60	110		$110.00

Universal Motors, that will operate on either direct or alternating current (any cycle), can be furnished at same price as regular A. C. Motors.

These ratings are based on blowers being placed in close proximity to forges, and supply pipes of ample size and shortest possible length being used. Bends should only be included when absolutely necessary, and then made with long, sweeping curves, avoiding sharp angles.

A separate blower for each forge is advisable, as piping is reduced to a minimum; higher efficiency can also be attained, as the power consumed is always in proportion to the number of forges in use.

Buffalo Engines

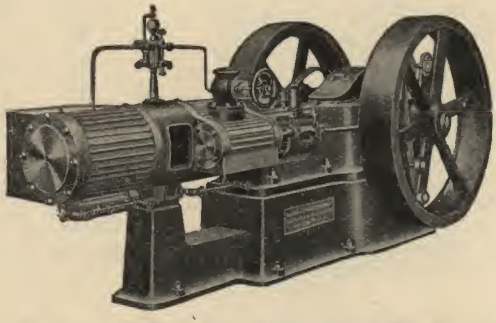
Buffalo Vertical High-Speed Engine, Class "O"

Buffalo Automatic High Speed Engines are built either simple or compound, in horizontal, vertical or marine types.

Simplicity of design, large bearing surfaces, smallest frictional losses, copious lubrication, smooth, easy running, high steam economy and close regulation—allowing of fluctuating loads—are the characteristics of every Buffalo Engine.

Careful and particular attention to the development of small-size engines, suitable for running exhausters and blowers, has produced a small engine in the various types that is without a peer. Small Buffalo Engines are arranged either for direct connection or belt drive, at the option of the purchaser.

A full descriptive catalog, containing the specifications of many types of Buffalo Engines, will be sent you on request.



Buffalo Horizontal Tandem Compound Engine, Class "A"